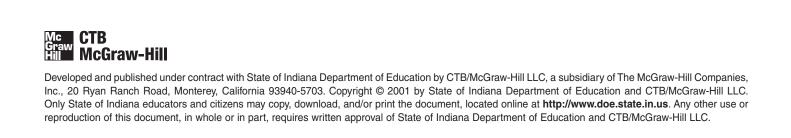
Guide to Test Interpretation



Graduation Qualifying Exam Retest Spring 2002







May 2002

Dear Educators:

The *Guide to Test Interpretation* is designed to help you evaluate *ISTEP+* results, explain the results to parents, and evaluate local program offerings based upon *ISTEP+* results. At the individual student level, *ISTEP+* results should be used to identify students' strengths and weaknesses in English and mathematics. On building and corporation levels, the reports should be used to evaluate local curriculum choices and the instructional strategies that are employed by teachers in classrooms.

In addition, the results can help you assess the effectiveness of local program offerings as they relate to remediation and prevention activities in the areas of English and mathematics. The information the results provide can be very valuable in your efforts to build stronger connections between curriculum, instruction, and assessments.

Now, more than ever, with the adoption of new, more rigorous standards in the areas of English/language arts, mathematics, and science, it is critical that test results are used responsibly with the goal of helping each child achieve his or her full academic potential. I urge you to work within your school community to help increase the level of understanding and knowledge about test results and the importance they have to individual students and the K–12 education system.

The new education accountability system (P.L. 221) will emphasize test scores and other data measurements more than ever in Indiana's history. I urge each of you to analyze *ISTEP+* results carefully and act in a proactive manner as we all work to build upon the many areas of improvements we have gained over the past several years.

Sincerely,

Dr. Suellen Reed

Superintendent of Public Instruction

Dr Suellen Rosal

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Understanding ISTEP+ GQE Retest Results

ISTEP+ report forms

This guide will help you understand *ISTEP+* test results and report forms in order to apply the results toward the goal of improving educational opportunities for students. This guide will also help you to be better prepared to answer questions from parents, students, and other members of the educational community regarding *ISTEP+* results. Toward this end, a Sample Letter to Parents is included at the end of this guide for your use.

Each *ISTEP+* report is designed to present clearly the information most useful to you and to parents. The audience and student populations included in each of the *ISTEP+* reports are listed below.

| ISTEP+ Report Information | | | |
|---|---------------------|------------------------|--|
| Report | Number of Copies | Student Population* | |
| For Teachers | | | |
| Student Report | 2 | ✓ | |
| Proficiency Roster (class) | 1 | ✓ | |
| Class Essential Skills Report | 1 | ~ | |
| Undetermined Status Roster (teacher, administrator) | 2 | ✓ | |
| For School Administrators | | | |
| Proficiency Roster (school) | 1 | ~ | |
| GQE Required Retest Roster | 1 | ~ | |
| Disaggregation Summary Report (school) | 1 | ✓ | |
| Graduation Test Labels (pass and retest) | 1 | ✓ | |
| Applied Skills Frequency Distribution | 1 | ✓ | |
| For Corporation Administrators | | | |
| Proficiency Roster (school) | 1 | ~ | |
| Disaggregation Summary Report (school) | 1 | ✓ | |
| Group Essential Skills Summary (corporation) | 2 | ✓ | |
| Applied Skills Frequency Distribution (school) | 1 each | ~ | |
| Essential Skills Summary (corporation) | 2 | ✓ | |
| Disaggregation Summary Report (corporation) | 2 | ✓ | |
| Undetermined Status Roster | 1 | ✓ | |
| Academic Standards Frequency Distribution | 1 | ✓ | |

^{*} The student population includes regular education students and those Special Education students determined by their case conference committee to be fully eligible for the *ISTEP+* program. It also includes students for whom the assessments were administered with special accommodations.

Students must be administered the sections of the GQE Basic Skills test and the Applied Skills test that relate to the content areas (mathematics and/or English/language arts) in which they are testing.

Note: Failure to return both the completed Basic Skills and Applied Skills documents will result in a student receiving a status of UNDETERMINED on the GQE Retest.

Copies of the student answers to the constructed response items, as they appeared in the Applied Skills test books, will be returned to the teachers for their assistance in reviewing the students' performance. The teacher may use these papers, in conjunction with information in the *Teacher's Scoring Guide*, to assist in further evaluating a student's strengths and needs. A copy of the Student Report is included in the package with the student responses.

The *ISTEP+* score reports are packaged by class and school, and they are shrink-wrapped to prevent damage during handling. Student reports for Braille tests are shipped separately.

Before you can interpret and apply the information in the reports, you must understand the meaning of the scores presented. If you are unfamiliar with *ISTEP+* or the testing and scoring terms, please read the next three sections carefully. If you need just a quick review, skim the glossary at the end of this guide.

When you are confident in your understanding, read the section that describes how to interpret *ISTEP+* reports and how best to apply test results in your job.

The ISTEP+ Testing Program

What can you learn from *ISTEP+*?

Taxpayers, parents, and educators are asking many questions about instructional programs as Indiana strives to build a brighter future by providing the best possible education for its young people. Questions such as the following are commonly asked:

"Are all of our students acquiring the skills they need to succeed?"

"What kind of individual instruction would help my child?"

ISTEP+ provides information to help you answer such questions and support the instructional choices you make for your students. *ISTEP+* reports can quickly show you the following:

- To what extent an individual student has mastered Essential Skills in the English/language arts and mathematics content areas.
- To what extent the students in your classroom, school, and corporation as a group are attaining mastery of Essential Skills.
- Where the students in your class, school, or corporation are relative to the Indiana Academic Standards established by the State Board of Education (see page 8 for performance category definitions).

What makes ISTEP+ scores meaningful?

No test score has meaning by itself. To have meaning, a score must be compared or referenced against some standard or norm. For example, a student's score of 19 on a spelling test means very little until you know more facts, such as how many words were on the test, how many words the other students spelled correctly, or what the teacher's standard is for a passing grade.

The Graduation Qualifying Exam (GQE) Retest

The Graduation Qualifying Exam (GQE) Retest is a criterion-referenced test. It consists of items that assess a student's performance with respect to particular criteria, in this case, to the Indiana Academic Standards established by the State Board of Education.

The GQE Retest does not provide norm-referenced information; that is, it does not compare the performance of Indiana students with that of students across the nation.

Criterion-Referenced Scores

Criterion-referenced scores indicate where a student stands in relation to the established Indiana Academic Standards, as well as relative to Indiana's Essential Skills. The most valuable application of criterion-referenced information is to identify a student's strengths and needs and to plan appropriate instruction.

Criterion-referenced scores are presented by Essential Skills within each content area, as follows:

| Criterion-Referenced Score Categories | | | | |
|---------------------------------------|--|---|--|--|
| Domain | English/language arts | Mathematics | | |
| Essential Skills | 3.1 Construct Meaning 3.2 Elaborate on Meaning | 3.1-3 Probsolv/Comm/Reas 3.4 Whole Number Sense | | |
| | • • • | : | | |

Indiana Academic Standards

To promote student academic achievement, the State Board of Education has adopted challenging content standards. A student who scores AT or ABOVE the Indiana Academic Standard in English/language arts or mathematics demonstrates the mastery of these standards. A student who scores BELOW the Indiana Academic Standard may require remedial assistance in order to pass the GQE Retest.

In addition, an UNDETERMINED category is reported for any student whose *ISTEP+* scores for English/language arts and/or mathematics are incomplete (i.e., all or part of a test was not taken or was considered invalid by the examiner). The phrase "did not retest" will be used to identify content areas not attempted by students during the GQE Retest.

Essential Skill Scores

Indiana's Essential Skills are listed by subject on the Student Report, the Class Essential Skills Report, the Essential Skills Summary, and the Group Essential Skills Summary.

The Indiana Performance Index (IPI) is used to indicate a student's performance on the Essential Skills. This is a statistical value that reflects the number of items a student would have answered correctly if the student had responded to 100 items like the ones actually on the test. It is a better measure of the student's performance than a simple percentage of correct answers to a small number of questions.

On the Student Report, next to each Essential Skill, the Student Skill Score is shown, along with the Passing Skill Score for a student at the standard, and the difference between the two scores.

The Class Essential Skills Report indicates whether students have mastered each Essential Skill. Symbols appear on this report indicating: 1) mastery, 2) nonmastery, 3) if there were too few score points to assess mastery conclusively, and 4) if a subtest was omitted or invalid. Mastery of an Essential Skill indicates that the student achieved an IPI that is equal to or greater than the IPI for a student at the standard.

The corporation Essential Skills Summary provides a summary of students' performance for all schools in the corporation.

Note: All sample reports shown in this guide contain simulated data only.

Item Response Theory

Item Response Theory (IRT) refers to the theory underlying a family of statistical models. These models describe the behavior of test questions and examinees. For the *ISTEP+* tests, two models are used. One is used for the multiple-choice test questions, and another is used for the constructed-response test questions.

The two models are used in combination with test data to characterize test questions and generate student scale scores. Both models use the data to determine how difficult each test question is and how well each question accurately identifies students who do and do not have the skill being tested by the questions. The multiple-choice model also describes the degree to which students can guess the correct answer to each question.

The statistical characteristics of the test questions can affect a student's total test score (scale score). The correct answer to a question that accurately identifies skilled students typically will carry more weight than the correct answer to a question that does not discriminate as well between students' skill levels. Greater weight is given to a more discriminating question because it is a better measure of the skill.

The combination of test questions that students answer correctly can also affect their scale score. Let's say that both Student A and Student B correctly answered 9 out of 20 test questions. Of the nine questions, Student A correctly answered six that were easy and three that were hard. In contrast, Student B correctly answered nine easy questions. It is likely that Student A would receive a higher scale score than Student B because he or she correctly answered a few more difficult questions. Therefore, Student A would be estimated to be slightly more knowledgeable than Student B.

Sample Letter to Parents

To help the teacher explain the *ISTEP+* reports to parents, a Sample Letter to Parents is provided at the end of this guide. You may duplicate or edit the letter to make it appropriate for your use.

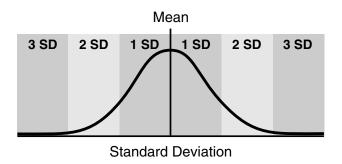
Summary Score Information

Mean and median scores

On *ISTEP+* reports, summary information for a group (such as a class) is often presented using mean or median scores. The mean is the average score obtained by adding together all scores in the group and dividing by the number of students in the group. The median is the middle score (50% of the scores fall below it).

Standard deviation

The standard deviation (SD) indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score and about 95% of scores are within 2 SDs of the mean. In almost any shaped distribution, all scores will be within 5 standard deviations of the mean score.



Student Report

The Student Report was redesigned starting with the *ISTEP+* Fall 2001 reports. Page 1, the Student Report, contains student performance data for English/language arts and mathematics. In the top section of this report that details a student's total score for both content areas, the word **Pass** replaces **Above the Standard/Passing Score** and **Did Not Pass** replaces **Below Standard**. Page 2 contains the student's Applied Skills results.

The Student Report presents test information to parents in ways that are easy to understand. It encourages them to discuss their child's strengths and needs and helps them become more involved in the child's learning process. Two copies of this report are provided. One copy is for teacher use and one copy is for the parent.

Criterion-Referenced Information

The top section of this report, called "Indiana Academic Standards," reports the student's scale scores in English/language arts and mathematics and relates these scores to the Indiana Academic Standards established by the State Board of Education (see page 8 for definition).

The center section lists the Essential Skills measured by the GQE Retest. Next to each skill, the student's academic performance is indicated by the Student Skill Score, along with the Passing Skill Score for a student at the standard, and the difference between the two scores.

Sample Student Report

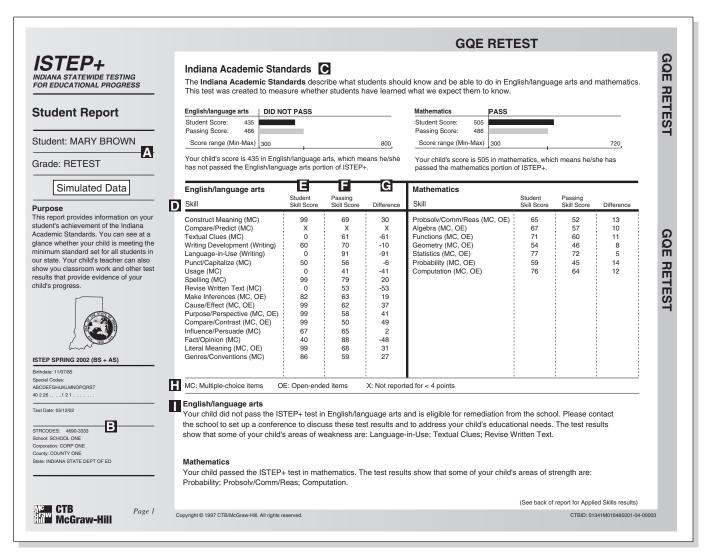
The sample student report presents results for Mary Brown, a retest student. The top section of the report describes Mary's performance as measured against the Indiana Academic Standards, and it shows her achievement as a scale score compared with the standard score adopted by the Board of Education.

On the same report, the GQE Essential Skills are listed. Reading to the right of the first Essential Skill, Construct Meaning, you will see that Mary achieved a Student Skill Score of 99 as compared to the standard of 69, or 30 points higher than the Passing Skill Score.

Mary's English/language arts total score is reported in two ways:

- the Student Skill Score for each Essential Skill, and
- a Student Score of 435 (see "Indiana Academic Standards" in area C).

This Student Score indicates that Mary did not pass the Indiana Academic Standard in English/language arts. Her score of 505 in mathematics means she passed the Indiana Academic Standard for that content area.

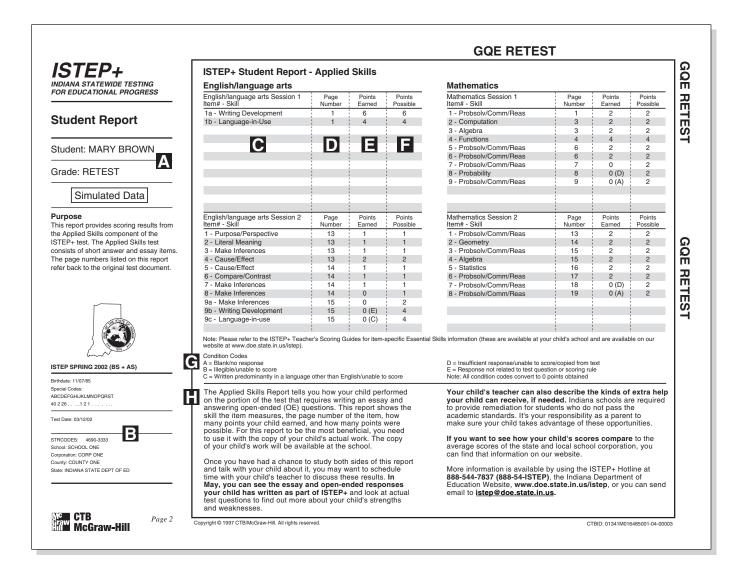


Highlights of the Student Report

- A Identifies the student's name and grade level.
- **B** Indicates the test date and the location by school, corporation, county, and state.
- Explains the student's performance relative to the Indiana Academic Standards established by the Board of Education.
- **D** Lists Essential Skills, grouped by content area.
- Presents the Student Skill Score that the student obtained.
- Indicates the Passing Skill Score for a student meeting the standard for this specific Essential Skill.
- G Shows the difference (+ or -) between the Student Skill Score and the Passing Skill Score for a student at the standard.
- **H** Defines symbols and acronyms used on the report.
- Explains student's areas of strengths and weaknesses.

Student Report (Back)

The reverse side (back) of the Student Report lists individual student test results for each Applied Skills item by subject area and test session. It provides the number of points the student earned on each item, as well as the maximum number of points possible. This report is used in conjunction with the *Teacher's Scoring Guides* and the imaged student responses to help the teacher explain the scores and the scoring process. Imaged student responses will be returned to the schools in May 2002 along with a third copy of the Student Report.



Sample Student Report (Back)

The sample Student Report (Back) provides test results for Mary Brown, a student who took the GQE Retest. Under English/language arts, session two, one can observe that item number 1 of this session is located on page 13 of the imaged student responses and that Mary scored one point, the maximum possible for this item.

Highlights of the Student Report (Back)

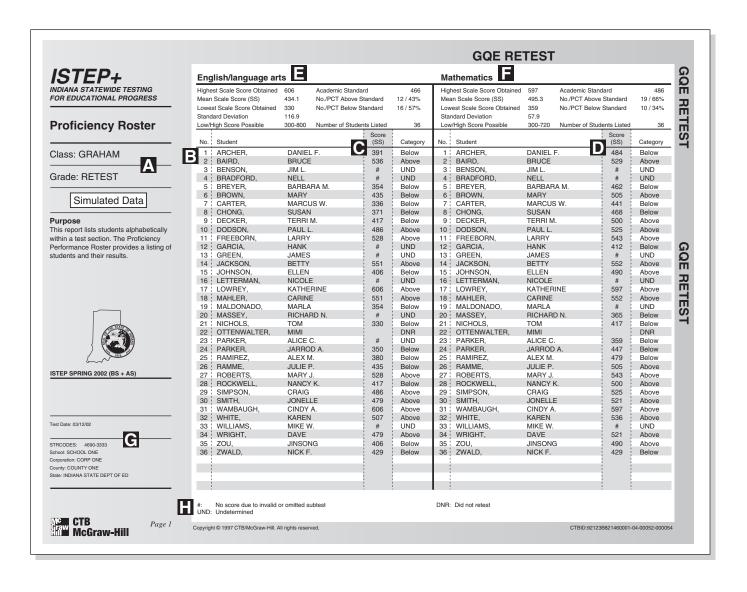
- A Identifies the student's name and grade level.
- **B** Indicates the test date and the location by school, corporation, county, and state.
- **C** Lists each item and its Essential Skill by content area and test session.
- **D** Indicates the page number on which the item appears in the test book.
- Presents the number of score points that the student earned for the given Applied Skills item, or, if no score, the letter of the condition code.
- **F** Indicates the number of points possible for the given Applied Skills item.
- **G** Explains Condition Codes.
- **H** Provides information for parents.

Proficiency Roster

This report lists all students in the class alphabetically and tells the teacher how each student performed in the content areas of English/language arts and mathematics. Also shown is the scale score for each student in each of the content areas.

In the upper portion of the report, summary information is given for the class as a whole. Shown for each of the two content areas are the class average (mean scale score), the standard deviation, the lowest and highest scale scores obtained by the students in the group, and the lowest and highest possible scores.

The group's performance is also compared to the academic standard to show the number and percentage of students above and below the standard.



Highlights of the Proficiency Roster

- A Identifies the class by the teacher's name and grade level.
- **B** Lists students alphabetically within the class.
- Provides each student's scale score and performance category within the English/language arts content area.
- **D** Provides each student's scale score and performance category within the mathematics content area.
- Provides English/language arts summary information for the class.
- **F** Provides mathematics summary information for the class.
- **G** Indicates the test date and the location by school, corporation, county, and state.
- H Defines the symbols and acronyms used on this report.

Class Essential Skills Report

The Class Essential Skills Report presents Essential Skill information for all the students in your class on a single report. It presents mastery information for each student and summarizes the performance of the class as a whole.

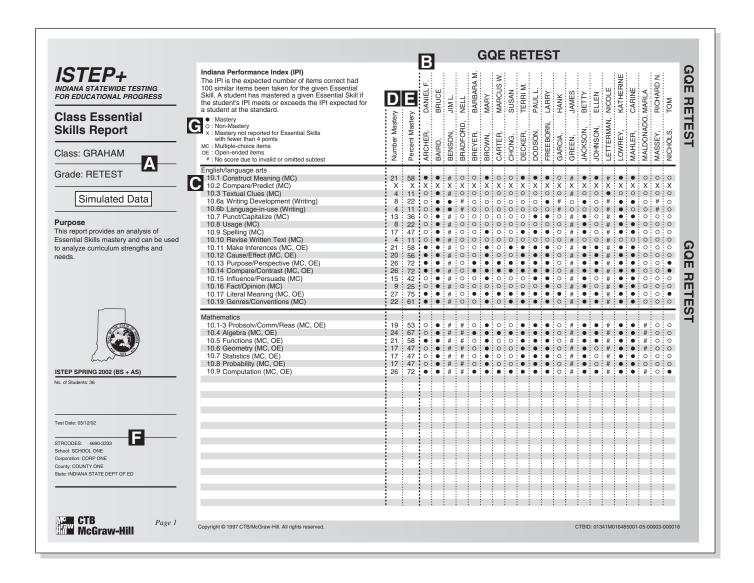
Essential Skills Information

The name of each student in the class appears in alphabetical order across the top of the report. The column below the student's name presents mastery information for that student. The Essential Skills for the grade appear on the left side of the report.

To the right of each Essential Skill the following information appears:

- the number of students who mastered the Essential Skill, and
- the percentage of students in the class who mastered the Essential Skill.

You can use this information to identify areas in which students may need additional instruction.

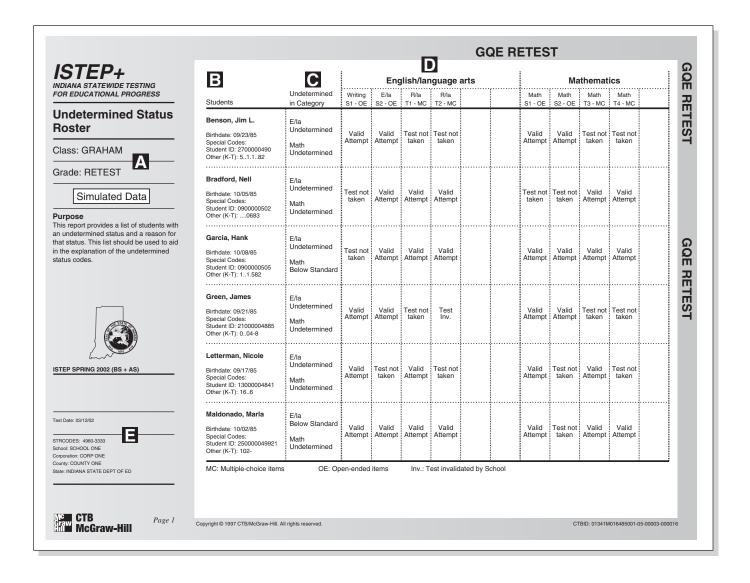


Highlights of the Class Essential Skills Report

- A Identifies the class by the teacher's name and grade level.
- **B** Lists students alphabetically by name from left to right.
- **C** Lists Essential Skills for the grade.
- **D** Presents the number of students who mastered the Essential Skill.
- E Shows the percentage of students who mastered the Essential Skill (see page 8 for definition of "Mastery").
- Indicates the test date and the location by school, corporation, county, and state.
- **G** Defines the symbols and acronyms used in the report.

Undetermined Status Roster

This report provides a list of all students in the class who have an undetermined status. Students who fail to complete one or more subtests in English/language arts or mathematics are listed as undetermined. The report indicates whether the subtest was not taken or was invalidated, thus explaining the reason for the undetermined status.

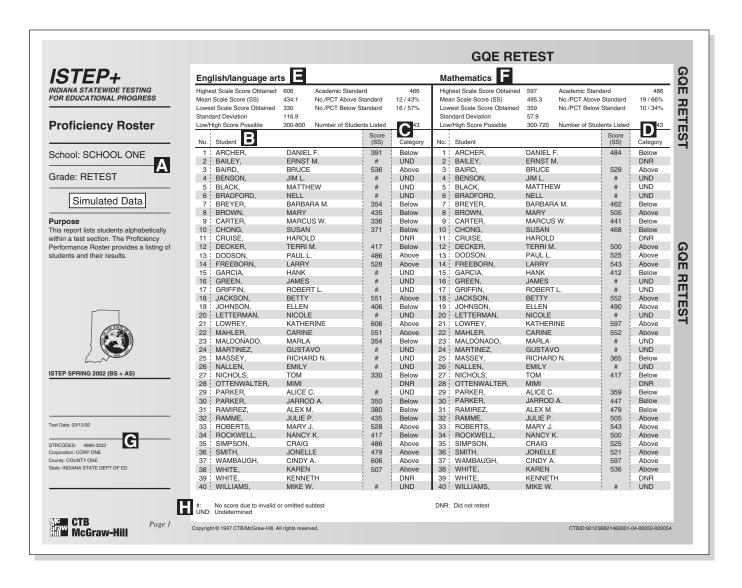


Highlights of the Undetermined Status Roster

- A Identifies the class by the teacher's name and grade level.
- **B** Lists students alphabetically who have an undetermined status in English/language arts or mathematics.
- C Indicates whether the undetermined status is in English/language arts or mathematics.
- **D** Indicates which subtest was invalidated or not completed.
- **E** Indicates the test date and the location by school, corporation, county, and state.

Proficiency Roster

This report lists all students in the school, by grade, alphabetically, and tells the principal how each student performed in the content areas of English/language arts and mathematics. Also shown is the scale score for each student in each of the content areas.

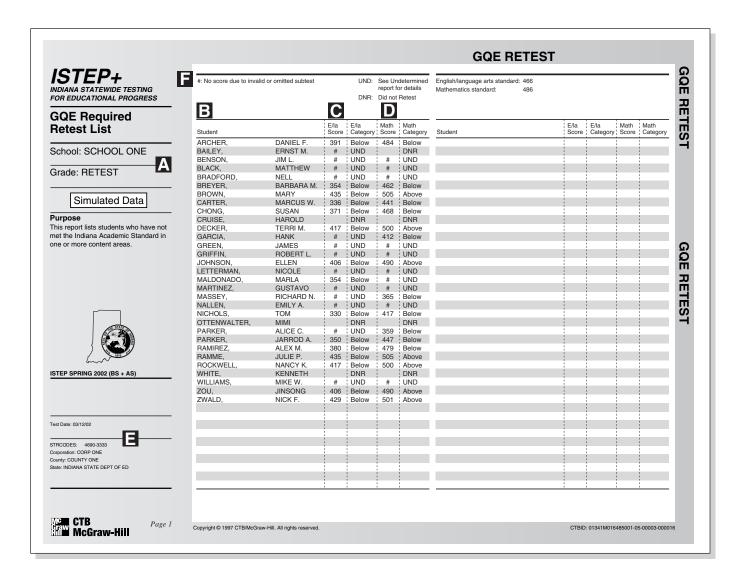


Highlights of the Proficiency Roster

- A Identifies the school and grade level.
- **B** Lists students alphabetically within the school for the grade tested.
- Provides each student's scale score and performance category (see page 8 for definition) within the English/language arts content area.
- **D** Provides each student's scale score and performance category (see page 8 for definition) within the mathematics content area.
- **E** Provides English/language arts summary information for the school.
- **F** Provides mathematics summary information for the school.
- **G** Indicates the test date and the location by corporation, county, and state.
- **H** Defines the symbols and acronyms used in the report.

GQE Required Retest List

This report lists alphabetically those students who fell below the standard in either English/language arts or mathematics or in both content areas. It also shows the performance category and scale score for each student in each of the content areas.

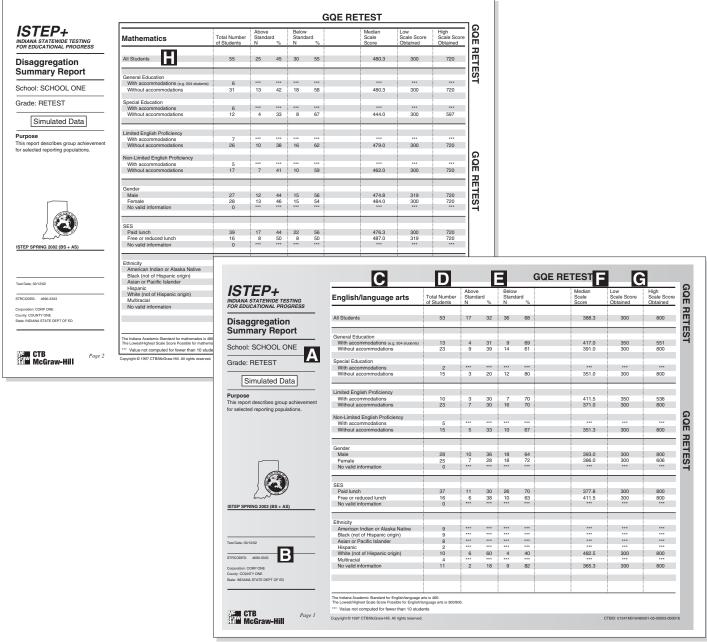


Highlights of the GQE Required Retest List

- A Identifies the school and grade level.
- **B** Lists students alphabetically within the school who will need to be administered a GQE Retest.
- Provides each student's scale score and performance category (see page 8 for definition) within the English/language arts content area.
- Provides each student's scale score and performance category (see page 8 for definition) within the mathematics content area.
- **E** Indicates the test date and the location by corporation, county, and state.
- **F** Defines the symbols and acronyms used in the report.

Disaggregation Summary Report

The Disaggregation Summary Report has been redesigned and is now on two pages, one for English/language arts and one for mathematics. This report presents, by content area, the total number of students with scores identified as above the standard, below the standard, and undetermined. This information is provided for all students, as well as all subgroups, e.g., Special Education students with accommodations and without accommodations. The Disaggregation Summary Report is used to obtain information regarding groups of students.



Highlights of the School Disaggregation Summary Report

- A Identifies the school and grade level.
- **B** Indicates the test date and the location by corporation, county, and state.
- C Identifies the subgroups in the English/language arts content area.
- **D** Lists the total number of students.
- Indicates the number and percent of students above standard and below standard.
- Indicates the median scale scores. (This score is not computed for groups with fewer than 10 students.)
- **G** Indicates the lowest and highest scale scores obtained.
- **H** Identifies the subgroups in the mathematics content area.

Graduation Test Labels

An individual **white** label is provided for each student and for each content area. These student labels indicate the student's status relative to meeting the standard in English/language arts and mathematics. Separate labels are provided for each content area passed and for each content area **not** passed. Labels will also be provided for students who did not retest or who received an undetermined status in one or both content areas.

| ISTEP+ INDIANA STATEWIDE TESTING FOR EDUCATIONAL PROGRESS | |
|---|--|
| MARY BROWN | GQE - Mathematics |
| Birthdate: 11/07/85 Grade: RETEST Corp: CORP ONE School: SCHOOL ONE Test Date: 03/12/02 | Standard: 486 Obtained: 505 Result: PASS |

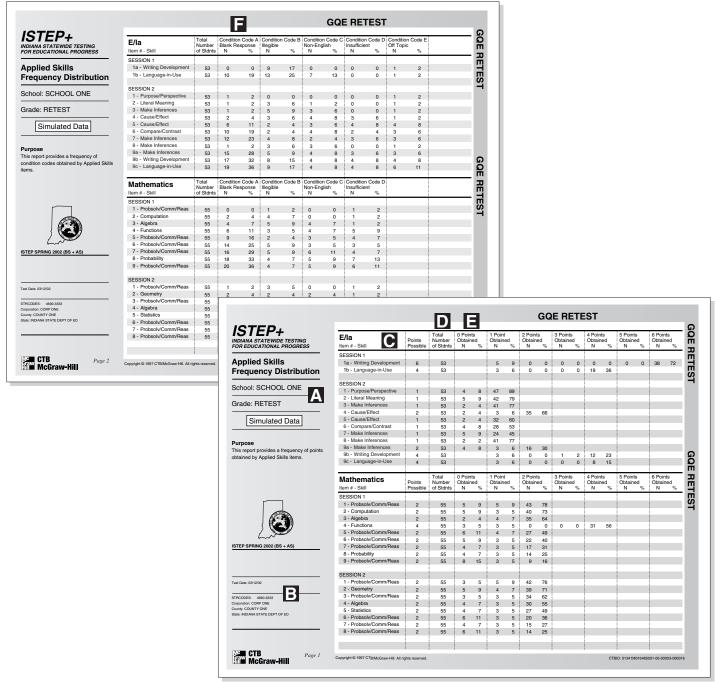
Pass label

Retest label

| ISTEP+ INDIANA STATEWIDE TESTING FOR EDUCATIONAL PROGRESS | RETEST REQUIRED | |
|---|--|--|
| MARY BROWN | GQE - English/language arts | |
| Birthdate: 11/07/85 Grade: RETEST Corp: CORP ONE School: SCHOOL ONE Test Date: 03/12/02 | Standard: 466 Obtained: 435 Result: DID NOT PASS | |

Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents, at the school level, the number and percentage of students who obtained each score point for the individual Applied Skills items. This information can be used to determine if the students in your school show strengths and needs on specific Applied Skills items, and, therefore, in the Essential Skills that are assessed by these items.



Highlights of the Applied Skills Frequency Distribution

- A Identifies the school and grade level.
- **B** Indicates the test date and the location by corporation, county, and state.
- C Identifies the item number and the skill being scored (for items that are scored for more than one skill). Descriptions of each item and scoring rubrics and skills are found in the *ISTEP+Teacher's Scoring Guide*.
- **D** Lists the total number of students receiving each score point.
- **E** Lists the number and percentage of students obtaining each score point.
- **E** Lists by condition code the number and percentage of students with no response.

Condition Codes

A = Blank/no response

B = Illegible/unable to score

C = Written predominantly in language other than English/unable to score

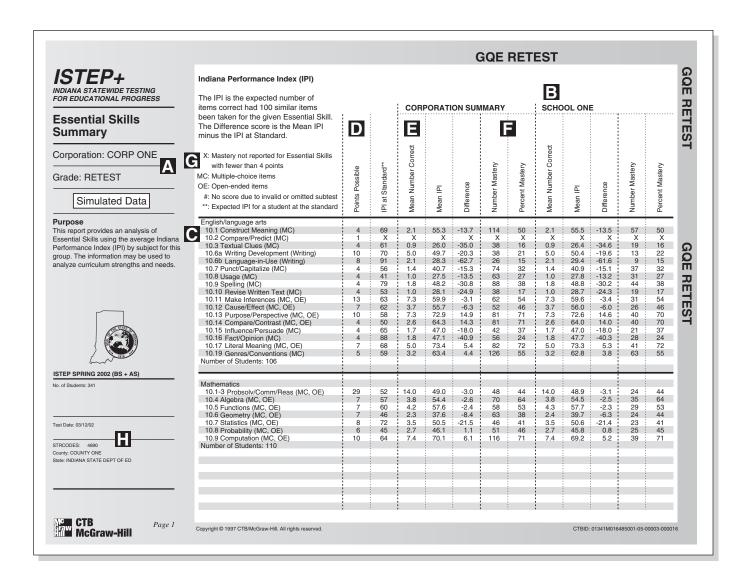
D = Insufficient response/unable to score/copied from text

E = Response not related to test question or scoring rule

NOTE: All condition codes convert to 0 points obtained

Essential Skills Summary

The corporation Essential Skills Summary provides criterion-referenced information from the *ISTEP+* achievement tests. It presents Essential Skill information summarizing the performance of students for individual schools by grade. Schools may contact their corporation Test Coordinator to request a copy of this report.

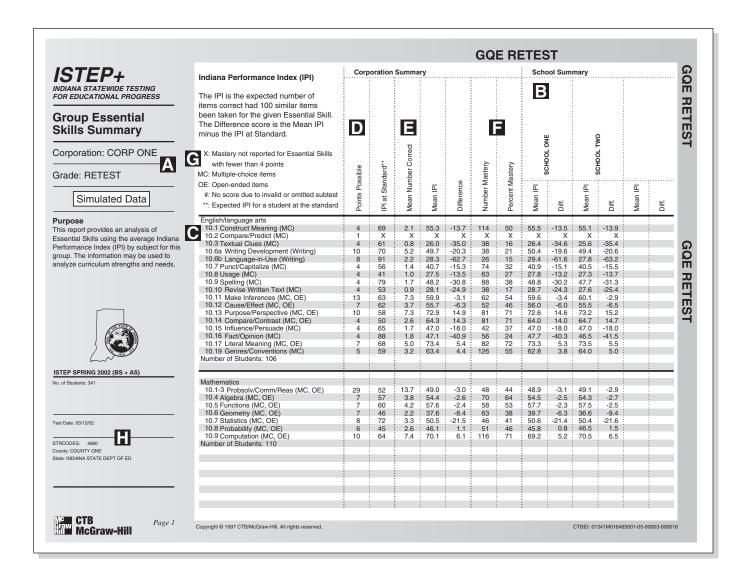


Highlights of the Essential Skills Summary

- A Identifies the corporation and grade level.
- **B** Identifies the name of an individual school (one school per page).
- C Lists Essential Skills for the content area.
- Presents the number of score points that assess each Essential Skill and lists the Indiana Performance Index (IPI) at the standard.
- E Lists the mean number of score points obtained by the students in your corporation by grade, the mean IPI obtained by your students, and the difference between the mean and standard IPI for each Essential Skill.
- Lists the number of students and the percentage of students who obtained mastery of each Essential Skill (achieved an IPI at or above the standard).
- **G** Defines the symbols and acronyms used in the report.
- **H** Indicates the test date and the location by county and state.

Group Essential Skills Summary

The corporation Group Essential Skills Summary provides criterion-referenced information from the *ISTEP+* achievement tests. It presents Essential Skill information for the grade, summarizing the performance of students for each school by grade. Schools may contact their corporation Test Coordinator to request a copy of this report.

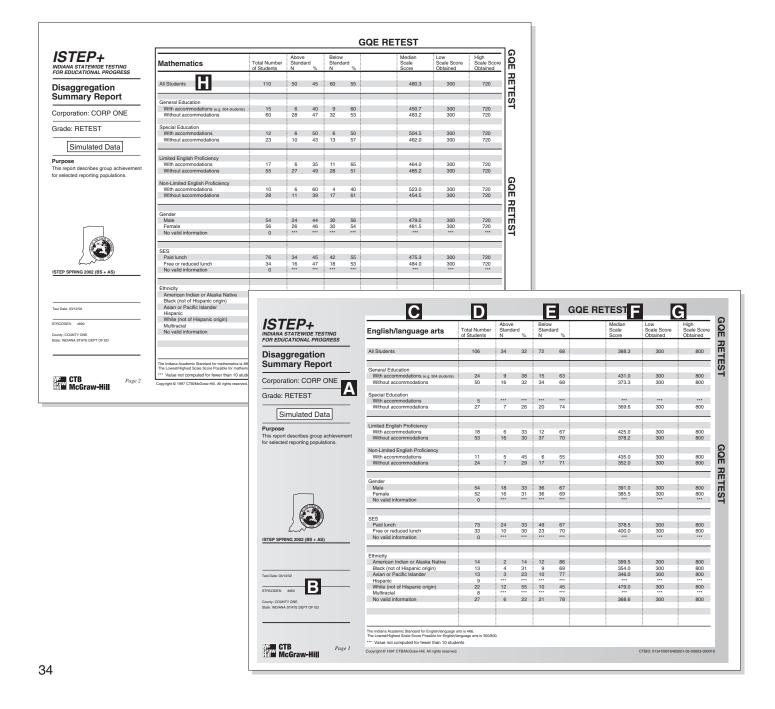


Highlights of the Group Essential Skills Summary

- A Identifies the corporation and grade level.
- **B** Lists schools alphabetically by name from left to right.
- C Lists Essential Skills for each content area.
- Presents the number of score points that assess each Essential Skill and lists the Indiana Performance Index (IPI) at the standard.
- E Lists the mean number of score points obtained by the student in your corporation by grade, the mean IPI obtained by your students, and the difference between the mean and standard IPI for each Essential Skill.
- Lists the number of students and the percentage of students who obtained mastery of each Essential Skill (achieved an IPI at or above the standard).
- **G** Defines the symbols and acronyms used in the report.
- **H** Indicates the test date and the location by county and state.

Disaggregation Summary Report

The Disaggregation Summary Report has been redesigned and is now on two pages, one for English/language arts and one for mathematics. This report presents, by content area, the total number of students with scores identified as above the standard, below the standard, and undetermined. This information is provided for all students, as well as all subgroups, e.g., Special Education students with accommodations and without accommodations. The Disaggregation Summary Report is used to obtain information regarding groups of students.

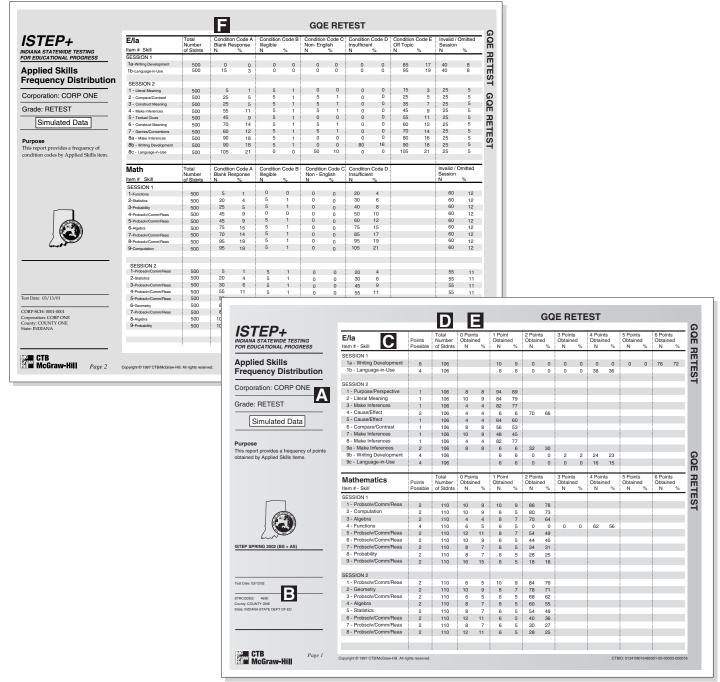


Highlights of the Disaggregation Summary Report

- A Identifies the corporation and grade level.
- **B** Indicates the test date and the location by county and state.
- C Identifies the subgroups in the English/language arts content area.
- **D** Lists the total number of students.
- Indicates the number and percentage of students above standard and below standard.
- Indicates the median scale scores. (This score is not computed for groups with fewer than ten students.)
- **G** Indicates the lowest and highest scale scores obtained.
- H Identifies the subgroups in the mathematics content area.

Applied Skills Frequency Distribution

The Applied Skills Frequency Distribution report presents, at the corporation level, the number and percentage of students who obtained each score point for the individual Applied Skills items. This information can be used to determine if the students in your corporation show strengths and needs on specific Applied Skills items and, therefore, in the Essential Skills that are assessed by these items.



Highlights of the Applied Skills Frequency Distribution

- A Identifies the corporation and grade level.
- **B** Indicates the test date and the location by county and state.
- Identifies the item number and the skill being scored (for items that are scored for more than one skill). Descriptions of each item and scoring rubrics and skills are found in the *ISTEP+Teacher's Scoring Guide*.
- **D** Lists the total number of students tested in the corporation.
- **E** Lists the number and percentage of students receiving each score point.
- **E** Lists by condition code the number and percentage of students with no response.

Condition Codes

A = Blank/no response

B = Illegible/unable to score

C = Written predominantly in language other than English/unable to score

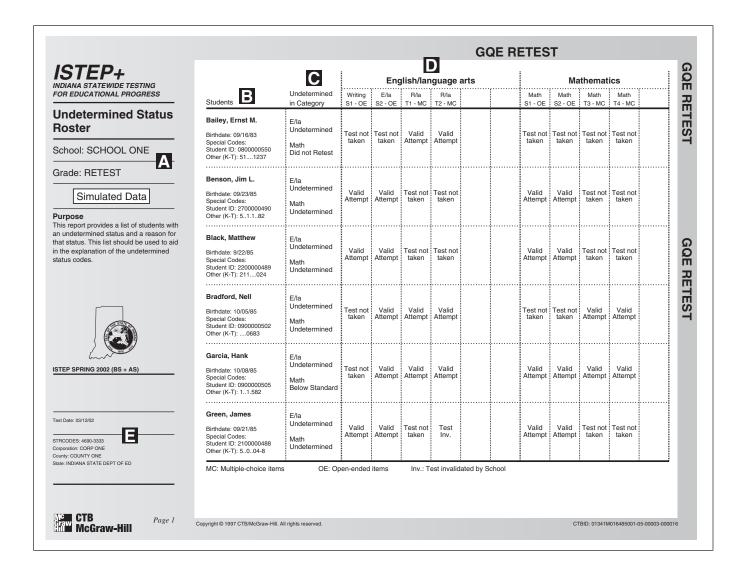
D = Insufficient response/unable to score/copied from text

E = Response not related to test question or scoring rule

NOTE: All condition codes convert to 0 points obtained

Undetermined Status Roster

This report provides a list of all students in the corporation who have an undetermined status. Students who fail to complete one or more subtests in English/language arts or mathematics are listed as undetermined. The report indicates whether the subtest was not taken or invalidated, thus explaining the reason for the undetermined status.

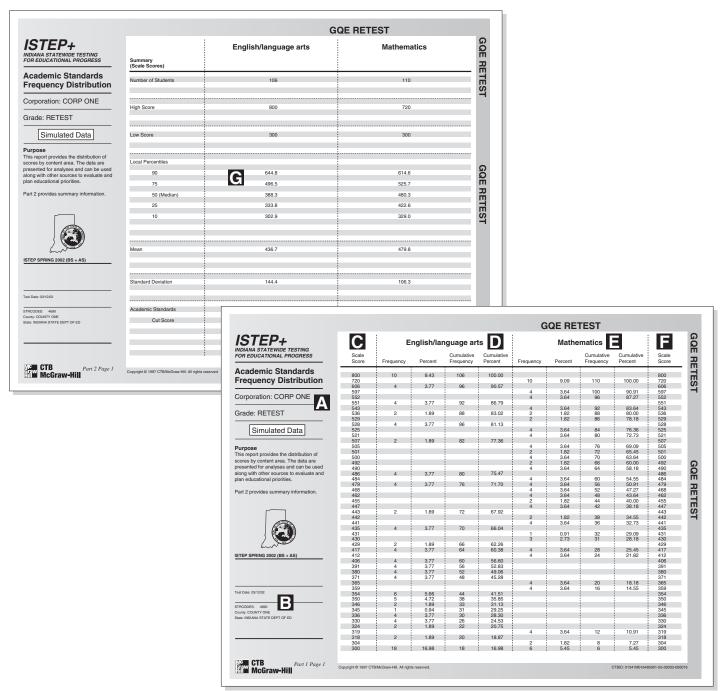


Highlights of the Undetermined Status Roster

- A Identifies the school and grade level.
- **B** Lists students alphabetically who have an undetermined status in either English/language arts and/or mathematics.
- C Indicates whether the undetermined status is in English/language arts or mathematics.
- **D** Indicates which subtest was invalidated or not completed.
- **E** Indicates the test date and the location by corporation, county, and state.

Academic Standards Frequency Distribution

The Academic Standards Frequency Distribution report provides the corporation administrator with the distribution of scale scores achieved by all the students tested in the corporation. The data are presented for analysis and can be used, along with other sources, to evaluate and plan education priorities.



Highlights of the Academic Standards Frequency Distribution

- A Identifies the corporation and grade level.
- **B** Indicates the test date and the location by county and state.
- **C** Lists the scale scores achieved on the English/language arts test.
- D Shows the number and percentage of students who achieved each scale score on the English/language arts test.
- E Shows the number and percentage of students who achieved each scale score on the mathematics test.
- **F** Lists the scale scores achieved on the mathematics test.
- G Indicates the scale scores achieved by students at five local percentiles (90, 75, 50, 25, and 10).

Reference

Glossary

Criterion-Referenced Test

A test that reports students' scores relative to the skills that make up the Indiana Academic Standards (see Essential Skills).

Essential Skills

Specific skills within the larger category of Indiana Academic Standards measured by *ISTEP+* criterion-referenced questions.

Indiana Academic Standards

To promote student academic achievement, the State Board of Education has adopted challenging standards for students in the following educational categories: reading comprehension, language mechanics/vocabulary, writing, mathematics basic skills, and mathematics applied skills. The standards are defined by a description of what a student should know and be able to do at the grade level completed by the student during the previous school year.

The Indiana Academic Standards define two general levels of knowledge and skill as follows:

Above the Standard (pass): The student who scores at or above the Indiana Academic Standards in English/language arts or mathematics demonstrates mastery of these subjects.

Below the Standard (did not pass): The student who does not score at or above the Indiana Academic Standards in all likelihood needs remedial assistance to be successful at the current grade level.

In addition, a category referred to as *Undetermined* is for learners whose *ISTEP+* scores for English/language arts or mathematics are incomplete. For these students, all or a part of the test was not taken or was considered invalid by the examiner (see Indiana Scale Score).

Indiana Performance Index

The Indiana Performance Index (IPI) is an indication of a student's performance on the individual Essential Skills that are measured by *ISTEP+*. It represents the expected number of items that the student would answer correctly if the student had taken 100 similar items for the specific Essential Skill.

Indiana Scale Score

Student achievement levels relative to the Indiana Academic Standards are reported by *ISTEP+* scale scores. These three-digit, equal-interval scores are expressed on unique scales by content area (English/language arts and mathematics). *ISTEP+* scale scores typically will range from about 300 to about 850.

Mean

The mean is the arithmetic average of a group of scores. It is calculated by adding the scores and dividing the sum by the number of scores.

Glossary

Mean Raw Score

The arithmetic average of the number of items answered correctly by a group of students.

Median

The median is defined as the score below which 50% of the cases fall. The median and the 50th percentile are the same.

Number Correct Scoring

A scoring procedure that involves adding up students' scores on the test questions in a test.

Pattern Scoring

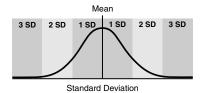
A procedure for assigning students' scale scores that involves considering the pattern of students' scores on the questions in a test as well as certain statistical characteristics of the questions.

Raw Score

A student's observed score on a test, i.e., the number correct. While raw scores do have some usefulness, they should not be used to make comparisons between performance on different tests, unless other information about the characteristics of the test is known.

Standard Deviation (SD)

A statistic that indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score, and about 95% of scores are within 2 SDs of the mean. In almost any shaped distribution, all scores will be within 5 SDs of the mean score.



Standardized Test

A test administered in accordance with explicit directions for uniform administration.

Test Section

A subtest covering part of a given content area. For example, the test for the mathematics content area might be divided into two test sections or subtests:

1) Mathematics Computation and 2) Mathematics Concepts and Applications.

Sample Letter to Parents

Dear Parent:

All public school students who are eligible to participate are required to meet the Graduation Qualifying Examination (GQE) standard in order to qualify for a state-recognized diploma. Students are provided with five opportunities to pass this test—in the fall of Grade 10 and in the spring and fall of Grades 11 and 12.

Your son or daughter participated in the *ISTEP+* Spring 2002 GQE Retest administration in either English/language arts, mathematics, or both. A student report is available for your review.

If your son's or daughter's overall achievement score in either subject is AT or ABOVE the standard set for the Indiana Academic Standards, as established by the State Board of Education, then he or she has "passed" in that subject area and will not be required to retest in that subject.

Students who have not met the Indiana Academic Standards in one or both subjects are eligible for remediation and will be allowed to participate in future retest administrations.

Sincerely,



20 Ryan Ranch Road Monterey, California 93940-5703

Guide to Test Interpretation

